

BUREAU OF AUTOMOTIVE REPAIR

FINAL STATEMENT OF REASONS

Hearing Dates:

March 6 and 8, 2002

Subject Matter of Proposed Regulations:

Mandatory Emissions Inspection
Standards and Test Procedures;
Acceleration Simulation Mode
Testing for Heavy Duty Vehicles

Section Affected:

§§ 3340.42 and 3340.42.1, Title 16,
Division 33, Chapter 1, Article 5.5,
California Code of Regulations

Updated Information:

The Initial Statement of Reasons is included in the file. The information contained therein is updated as follows:

The Bureau of Automotive Repair (BAR) wishes to emphasize that the proposed action does not subject a new group of vehicles to the requirements of the Smog Check Program (Program); instead, the proposal simply changes the inspection protocol for the specified group of vehicles. Currently, vehicles with a gross vehicle weight rating (GVWR) of 8,500 pounds or more are subjected to a static, two-speed idle test. Under the proposed action, vehicles with a GVWR of less than 10,000 pounds would be subjected to the dynamic, loaded-mode test.

BAR also notes that businesses that operate affected heavy-duty vehicles have the option of participating in BAR's Fleet Program. If a business *chooses* to become licensed by BAR as a fleet, it can inspect its own vehicles on-site or have the necessary inspections contracted out under a commercial business agreement. In addition, unlike the consumer marketplace, fleet technicians that repair vehicles that have failed a smog check inspection do not have to be licensed. Of course, as provided in Section 44020(d) of the Health and Safety Code, the repair cost waiver is not available to fleet vehicles.

For obvious reasons, the affected vehicles cannot undergo the loaded-mode test procedure while carrying cargo. The proposed action requires that heavy-duty vehicles subject to loaded-mode testing be tested in an unloaded condition. Initially, the term "unloaded" was defined to mean that the vehicle is not currently transporting loads for delivery or is not carrying items of a temporary nature. The definition goes on to exclude items that have been welded, bolted or otherwise permanently affixed to the vehicle.

However, many of the vehicles that fall into the specified GVWR category routinely carry other items incident to their business use that are not permanently attached to the vehicle. This presents a problem in that these items could be considered “items of a temporary nature” within a strict interpretation of the proposed definition.

BAR recognizes the fact that many heavy-duty vehicles operated by a variety of businesses frequently carry or are loaded with items that are not permanently affixed to the vehicle but are essentially an integral part of the vehicle’s business function. These items are almost never unloaded or removed from the vehicle except when in use on a job site. Requiring that they be unloaded prior to testing seems to be unnecessarily burdensome to the owner/operator. Most of these vehicles will still be testable and the primary purpose of the proposed action will be substantially accomplished. Therefore, the proposed action was modified to take into consideration items that may be carried in or on these vehicles, but that are not permanently affixed to the vehicle. Such items include tools, supplies, parts, hardware, equipment or devices of a similar nature that are routinely carried in or on the vehicle in the performance of the work for which the vehicle is primarily used.

Objections or Recommendations/Responses:

The following comments/objections/recommendations were made, either in writing or orally at the public hearings, regarding the proposed action:

1. Bert Friel, representing Pacific Gas and Electric (P.G.&E.), in oral testimony at the March 6, 2002 public hearing, offered the following:

- a. Pacific Gas and Electric (PG&E) is neutral at this point. PG&E needs clarification of what is meant (in section 3340.42(d)(1)(C)) by “modifications.” Does it mean original equipment manufacturer (OEM) modifications or does it mean non-OEM modifications, or does it include both?

This comment/recommendation was rejected because:

The term “modifications,” as used and defined in the proposed action (§ 3340.42(d)(1)(C)), applies to any and all modifications made to a vehicle’s body and/or chassis for business purposes, that would render the vehicle incompatible with loaded-mode testing. This would include OEM and non-OEM modifications.

- b. How is it determined whether a modification is made for business purposes or not?

This comment/recommendation was rejected because:

Generally, whether a modification has been made for business purposes or not can be easily determined by considering who owns the vehicle, the use of the vehicle and the nature of the modification. It is highly unlikely that a vehicle owned by PG&E, for example, would have modifications made for other than business purposes relating to the function of the vehicle as it relates to the operation of a utility service. Business modifications to a vehicle might include such things as the mounting of welders, electrical generators, air compressors, utility beds, utility boxes, booms, lifts, light towers or “cherry pickers.” On the other hand, an SUV with a GVWR in excess of 8,500 pounds that is equipped with an extreme lift kit, fender flares and oversized wheels and tires, and that is owned by a private party, most likely was not modified for business purposes. Those modifications would be considered cosmetic or recreational in nature.

This determination will have to be made on an individual, case-by-case basis. Smog Check stations and technicians will have to consider all of the relevant factors (i.e., the ownership of the vehicle, the type of vehicle, the use of the vehicle, the nature of the modifications, etc.) when a vehicle is presented for testing. Without developing complicated, time consuming and burdensome procedures and criteria, the simplest solution is to say that “modifications that render a vehicle incompatible with loaded-mode testing shall not include any tire, wheel, body or chassis modifications made for other than business purposes.” That is not to say that such modifications are prohibited, but rather they do not except the vehicle from loaded-mode testing.

2. Stephanie Williams and Staci Ellis, representing the California Trucking Association (CTA), in oral testimony at the March 6 and 8, 2002 public hearings, in a letter dated March 7, 2002, and in an e-mail dated May 8, 2002, offered the following:

- a. The California Trucking Association is opposed to this rule as written and has asked in writing and verbally for a 30-day extension (of the public comment period) to evaluate the cut-points.

This comment/recommendation was accepted and the following action was taken to accommodate it:

In order to accommodate the California Trucking Association’s requests, the public comment period was extended twice; first, through April 8, and again through May 8, 2002. Notice of each extension was mailed to the same interested parties to whom the initial Notice was mailed.

- b. The BAR has not provided the necessary notice and review period required by law in order to make the proposed regulation changes at this time. The BAR has violated the right to due process of stakeholders by failing to notify CTA and several affected trucking operations of the proposed regulatory action.

This comment/recommendation was rejected because:

The Bureau of Automotive Repair (BAR) has fully complied with the requirements of the Administrative Procedures Act (APA) (Gvt. Code § 11346, et seq.) regarding notice of the proposed action. In fact, BAR has, as is its general practice, gone beyond the basic notice requirements and included the Initial Statement of Reasons with the Notice and text of the proposed action.

The Notice was duly published in the California Regulatory Notice Register on January 18, 2002, and was mailed, on or before January 17, 2002, to all parties on the BAR's mailing list who have requested notice of proposed actions of this nature. The California Trucking Association was included in that mailing. The Notice, text and Initial Statement of Reasons were also posted on BAR's website, at www.smogcheck.ca.gov, beginning January 17, 2002. The public hearings were set for March 6 and 8, 2002, and the public comment period was set to close at 5:00 p.m., March 8, 2002, more than the required 45 days from the date of publication of the Notice in the California Regulatory Notice Register.

In order to accommodate the California Trucking Association's requests (Please see Comment/Recommendation 2.a. above), the public comment period was extended twice; first, through April 8, 2002, and again through May 8, 2002. Notice of each extension was mailed to the same interested parties to whom the initial Notice was mailed. After an extension of 61 days, only the California Trucking Association offered any additional comments.

The record clearly demonstrates that the BAR has not only complied with, but has exceeded the requirements of the APA in this matter. The proposition that the BAR has somehow not complied with the law and has somehow violated someone's right to due process in pursuing the proposed action is without merit and is rejected.

- c. There is no environmental impact analysis for the proposed action. The BAR has provided no test data or analysis as part of the official record to substantiate the emissions reductions it claims will result from requiring heavy-duty fleet vehicles to undergo loaded mode testing. Heavy-duty fleet vehicles are among the best-maintained vehicles in the state, and California's trucks are among the cleanest in the nation. The real emission reductions from including heavy-duty vehicles in the enhanced Program will be negligible, and in fact may be negated by increased emissions from requiring trucks to make trips to off-site testing and referee stations.

CTA believes that the majority of the reductions the BAR is looking for will come from privately owned sport utility vehicles and minivans, and that a fleet exemption would be appropriate until the BAR does a proper analysis of the environmental benefits of including fleets in the regulation.

Recommendation: Provide a fleet exemption until a detailed environmental impact analysis including fleet vehicles, as well as all underlying data used to quantify the emission reductions estimates cited in the Initial Statement of Reasons, has been performed.

This comment/recommendation was rejected because:

BAR is not aware of any statutory requirement or other obligation to perform an “environmental” impact analysis as a condition of adopting regulations to revise the Smog Check Program. In any event, emissions reductions are achieved when vehicles are properly tested and, if failed, properly repaired. There is no requirement for an “environmental” impact analysis in the APA.

The law does not allow vehicles to be exempted from the Program based upon ownership, so BAR could not exempt vehicles simply because they were owned and operated by a fleet.

- d. The procedures used to develop TABLE II are not clear. It is not clear what lines A and B refer to in TABLE II.

This comment/recommendation was rejected because:

BAR has provided CTA with the report, Proposed “Initial” Cut-Points for Heavy-Duty Vehicles. This report describes, in detail, the data collected and methodology for determining the cut-points.

As explained to CTA, for cut-point development, the "A" and "B" values are the factors used to arrive at the target emission concentration (pass/fail standards). The “A” coefficient is the intercept and the “B” coefficient is the slope of the curve that relates the distribution of emissions to the vehicle test weight.

- e. The cut-points are in violation of the Administrative Procedures Act. We can’t figure them out.

This comment/recommendation was rejected because:

BAR has provided CTA with the report, Proposed “Initial” Cut-Points for Heavy-Duty Vehicles. This report describes, in detail, the data collected and methodology for determining the cut-points.

In BAR’s opinion, the cut-points are adequately defined. The formula necessary to determine the cut-points (pass/fail standards) is provided in the table. The actual standard can be calculated for any vehicle once the test weight, vehicle type and model year is known. Regulations using this methodology were first adopted in 1995 for passenger vehicles, light-duty and medium-duty trucks. The proposed

action being considered herein proposes to adopt ASM cut-points for heavy-duty vehicles less than 10,000 GVWR using the same proven methodology.

- f. We've asked for the underlying data, and in our minds this calculation interferes with vehicle manufacturer certification values. The cut-points, from what we can tell, require owners of sport utility vehicles and trucking companies to fix their vehicles to come up to a standard that the engine manufacturers were not required to come up with. The regulation will require commercial truck and private SUV owners to "figure out" how to further reduce pollution from manufactured certification levels. We are completely opposed to this process.

This comment/recommendation was rejected because:

The underlying data from roadside tests conducted by BAR and ARB was provided to CTA during the extended public comment period. The emission standards applied to each vehicle within the new weight categories were formulated jointly by ARB and BAR Engineering. The same methodology has been used to formulate standards for passenger vehicles and light- and medium-duty trucks without exceeding the manufacturers original certification values. The standards formulated for heavy-duty vehicles do not exceed the manufacturers original certification values either.

Short tests, such as the Smog Check test, differ significantly from the Federal Test Procedure (FTP). They are neither designed nor intended to provide a numerical, one-to-one correlation with the manufacturers original certification test. Rather, they are designed to correctly identify vehicles with emissions that are much higher than what would be allowed by the original FTP. These high emissions are caused by engine and/or emission control systems defects that can be repaired to achieve lower emissions.

- g. The statement of reasons does not address how older vehicles will be affected.

This comment/recommendation was rejected because:

It is not clear what is meant by this comment. Older vehicles that are subject to the requirements of the Smog Check Program are, and will continue to be treated the same as any other vehicle subject to the Smog Check Program. Older vehicles are usually built to comply with less stringent new vehicle emission requirements. Likewise, the Smog Check standards for heavy-duty vehicles (TABLE II) are less stringent for older vehicles. Consideration has always been given to vehicle model-year, emission equipment, and engine family when establishing vehicle emission standards. Therefore, older vehicles will not be "affected" any differently than they currently are.

- h. Clarification is needed for the ratio used to determine gross polluter emission levels and how that ratio compares to the ratio used to calculate passenger vehicle gross polluter levels.

This comment/recommendation was rejected because:

As stated in the report, Proposed “Initial” Cut-Points for Heavy-Duty Vehicles, June 6, 2001, gross polluter standards for heavy-duty vehicles were set using the same proportionality that exists between the gross polluter standards and regular emissions standards for medium-duty trucks in BAR’s Phase 2.3 cut-point table (see page 12 of the report). This report was provided to CTA during the public comment period.

- i. CTA supports efforts by state agencies to reduce NOx emissions from heavy-duty, on-road vehicles as long as it is economically feasible for California trucking companies and supported by substantial testing and data collection. However, CTA opposes the changes to Title 16 (Mandatory Emissions Inspection Standards and Test Procedures; Acceleration Simulation Mode Testing for Heavy Duty Vehicles) proposed by the Bureau of Automotive Repair (BAR), because we do not feel the changes meet those requirements.

This comment/recommendation was rejected because:

BAR and ARB have completed substantial testing and data collection as documented in the report, *Proposed “Initial” Cut-Points for Heavy-Duty Vehicles*. The proposed action is supported by testing and data collection. CTA’s objection appears to be global rather than specific. Correspondence and telephone conversations between CTA and BAR have occurred during the public comment period. Yet, a specific explanation as to what “substantial testing and data collection” should mean has not been forthcoming from CTA. Thus, this appears to be an unsupported comment.

Furthermore, CTA has not provided any information supporting their contention of economical feasibility or lack thereof. Currently, heavy-duty vehicles, such as those represented by CTA, already undergo Smog Check testing biennially to measure HC and CO emissions. The emission control systems that control NOx are also functionally checked biennially on these heavy-duty vehicles. The proposed action merely specifies a different type of biennial test that happens to measure the actual emission level of one additional pollutant, NOx. Cut-points for all pollutants are set to fail vehicles that would benefit from emission reducing repairs that would be viewed as routine maintenance. These same repairs result in other benefits such as fuel economy and efficiency - items that would be cost effective - making them especially important for fleet vehicle owners such as those represented by CTA.

- j. In 1995, the BAR proposed to include heavy-duty vehicles of 6,000-8,500 GVWR in the enhanced Smog Check Program (Program), which CTA emphatically opposed. At the time, the United States Environmental Protection Agency (EPA) had adopted requirements for inspection and maintenance programs that specifically targeted passenger and light-duty vehicles. Since that time, no additional regulations have been passed that require the inclusion of heavy-duty vehicles in the enhanced Program. CTA feels that the changes to Title 16 are confusing and that there is a great need for further clarification and analysis review before the regulation is amended to include heavy-duty vehicles.

This comment/recommendation was rejected because:

This comment fails to identify any specific areas needing clarification. Moreover, it is BAR's opinion that sufficient analysis has already taken place.

While the USEPA rule specifies minimum requirements for I/M Programs, California in its 1994 Ozone State Implementation Plan (SIP), and supporting legislation - Chapter 29, Statutes of 1994 (SB 521), Chapter 1192, Statutes of 1994 (SB 2050), and Chapter 27, Statutes of 1994 (AB 2018) - spelled out its program components. At that time, ASM testing of heavy-duty vehicles was planned and included. In ARB's July 12, 2000 report, *Evaluation of California's Enhanced Vehicle Inspection and Maintenance Program (Smog Check II)*, California's first evaluation of emission reduction achievements, it was concluded that projected reductions were not being achieved in part because some original program components had not yet been implemented. One of these original components not yet implemented was the ASM testing of heavy-duty vehicles.

- k. The BAR asserts in its Economic and Fiscal Impact Statement (STD.399) that the proposal will have no impact on private business. It fails to take into account businesses whose operations include transportation of goods using light-heavy duty vehicles. Many companies with large fleets of affected vehicles currently have the equipment and technicians on-site to perform their testing. Any company that utilizes vehicles that will fall under the new Title 16 language will need to alter their operations to include these additional tasks:
 - 1. Taking the vehicles out of service for an undisclosed period of time to be tested by an off-site technician, making it necessary to either procure a replacement vehicle or lose the revenue that would be generated by the vehicle's regular operations;
 - 2. Paying a driver to transport them off-site to a testing station, taking into consideration hours-of-service restrictions; and
 - 3. Paying a technician to perform loaded-mode testing as opposed to having their own technician perform the tests.

These extra tasks, in addition to the time and money spent to repair vehicles that would have passed the two-speed idle test, could mean a significant added cost per each vehicle that must be tested. Preliminary estimates from affected companies have projected a potential annual loss of up to \$4000.00 in revenue per vehicle that has to be taken off-site for testing.

CTA is not satisfied with the STD.399 as a substitute for the detailed economic impact analysis that the BAR should have performed before proposing the changes to Title 16. In addition, if California decides to turn the entire state into an “enhanced area,” the number of affected vehicles will increase dramatically. The BAR did not consider fleet vehicles when proposing this regulation and completely ignored the financial burden the proposed Title 16 changes will have on businesses statewide. The BAR liberally cites its own “estimates,” but does not provide data sources to back them up. CTA demands that the BAR perform an extensive economic impact analysis on this issue, making all data obtained available for public review and comment, before including fleet vehicles in the Title 16 regulations.

Recommendation: The BAR should not finalize any proposed changes to Title 16 until it has conducted a detailed, comprehensive study of the real impacts the changes will have on businesses statewide and has made available all underlying data for a public review period.

This comment/recommendation was rejected because:

The proposed action does not require fleet operators to purchase ASM test equipment. Neither does it require vehicles to be tested that would not otherwise be subject to biennial emissions testing. All it does is change the type of emissions test that these vehicles will be subjected to.

To mitigate any costs of the proposal, BAR offers the following options to licensed fleets:

- The use of mobile inspection services. Mobile testing of fleet vehicles is authorized in Section 44020 of the Health and Safety Code. This may include the possibility of having BAR’s referee services contractor provide inspection services to commercial fleets. Administrative issues regarding the price and availability of the testing will need to be resolved. In addition, the referee contractor would have to be guaranteed a minimum number of tests at a specific site to make the mobile testing service cost-effective for all concerned.
- On-Board Diagnostics, second generation, (OBD-II) monitoring exemption. Fleets could exempt applicable vehicles from the loaded-mode requirement under the following conditions: (1) if the vehicle is equipped with OBD-II; and, (2) the vehicle participates in the Continuous Testing Pilot Program

monitored by BAR. In this program, vehicles are tracked electronically and their OBD-II systems are monitored for faults and trouble codes. The information gathered from this monitoring is continually transmitted to a database maintained by BAR. If the vehicle MIL illuminates, the fleet has an allotted period of time in which to repair the vehicle. If not repaired correctly and within the allotted time period, the vehicle's exemption would be rescinded.

BAR also notes that the \$4,000 annual loss of revenue figure per tested vehicle claimed by CTA seems unreasonable and inflated, and lacks specific detail. If, as CTA claims, the affected fleet vehicles are in constant use, the vehicles must happen by a smog check station in the course of their travels. Smog Check inspections generally take less than 30 minutes to perform. Since smog check inspections are already required biennially, BAR is confident that out of a two-year, 730-day window, 30 minutes could be made available for an inspection without a loss of \$4,000 (annually). It should also be pointed out that the heavy-duty vehicles referred to by CTA already find the time to obtain a two-speed idle (TSI) test on a biennial basis.

Moreover, some fleets consist of both passenger cars and trucks, and their passenger cars, and light- and medium-duty trucks already require a loaded-mode inspection. Consequently, several business fleets have purchased the dynamometer-based inspection equipment. Under the proposed action, those fleets will be able to continue doing their inspections in-house, including heavy-duty vehicles.

For the "many companies with large fleets of affected vehicles" not currently testing in-house, it may become economically beneficial to purchase the ASM equipment. This would then permit in-house testing of all their vehicles, including passenger cars, light-, medium- and heavy-duty vehicles.

United Parcel Service (UPS), one of the largest fleets operating in California, has not purchased dynamometers to conduct on-site inspections, but has verbally informed BAR that the proposed action will have only a minimal impact on their fleet operations and they do not agree with CTA's assertions. UPS has elected not to comment further on the record since requesting an extension of the public comment period.

1. CTA believes that the proposed Title 16 changes set a dangerous precedence for future regulatory actions. The BAR notice of the proposed changes states:

"In the middle of 2000, the California Air Resources Board (ARB) released a report on the effectiveness of the Program. ARB's report indicates that while the current Program is reducing a significant amount of motor vehicle emissions, improvements to the Program must be made if California is to meet federal air quality standards.

For example, California's 1995 State Implementation Plan - the blueprint submitted to the United States Environmental Protection Agency that explains how the state will achieve compliance - claimed an emissions reduction of 112 tons per day (tpd) for the Program. ARB's report found that the emissions reductions associated with the Program are closer to 65 tpd, indicating that improvements are needed.

In a joint letter to the USEPA explaining how the shortfall could be eliminated, the Bureau and ARB asserted that near-term improvements to the Smog Check Program would result in a statewide emission reduction of almost 14 tpd by 2002. By 2005, the benefit increases to almost 22 tpd; in 2008, the benefit reaches its maximum projected value of 24.1 tpd."

The BAR clearly admits that the inclusion of vehicles with GVWR of 8,500-10,000 lbs. in the enhanced Program would barely make up half of the 47 tpd shortfall the BAR cites as reason for this regulatory action. In addition, the BAR admits that the proposed changes would affect only what it considers to be a small number of vehicles statewide. CTA believes that this leaves room for the BAR to unfairly target other sectors of the automotive industry in the future under the guise of making up the rest of the shortfall. Considering that this version of Title 16 lacks a complete economic impact analysis, CTA sees this as the BAR setting a precedent to subject other vehicles to unreasonable testing without fully exploring the impact the regulations will have on business.

Recommendation: The BAR should clarify how it will address the SIP shortfall and improve the Program without unfairly subjecting heavy-duty vehicles to loaded-mode testing.

This comment/recommendation was rejected because:

The proposed action will not, by itself, make up for the total shortfall in emission reductions necessary to satisfy the obligation of California's State Implementation Plan (SIP). The proposed action is but one element of the improvements that are necessary if the Program is to meet the SIP obligations. The Initial Statement of Reasons clearly states that the proposed action will implement only one of the changes recommended by the Air Resources Board (ARB) – loaded-mode testing for heavy-duty vehicles.

As for the "dangerous" regulatory precedent, BAR is unsure how taking the steps recommended by another state agency to improve the air quality, and implementing them pursuant to statutory requirements, could be considered dangerous. Certainly, CTA has exercised its statutory right to comment and participate in the rulemaking process and would have the same opportunity to do so in any of BAR's future regulatory endeavors.

- m. The BAR has not made the underlying data used to formulate the TABLE II cut-points part of the record. Table II, which accompanies the proposed Title 16 changes, lacks clarity and should be explained in "plain English" so that the public can understand the regulation. The key is very incomplete in its explanations of the standards and how they are calculated, and the document fails to adequately explain the required test procedures. CTA would like to see definitions/explanations of the following added either to Table II or to the Statement of Reasons:
1. The procedures of the Accelerated Simulation Mode 50-15 and 25-25 tests, including a discussion of the scale functionality of the dynamometers used for the testing, how they are certified, and how their accuracy is verified on a regular basis.
 2. The difference between the values in Line A and Line B of Table II and how they were obtained. Although the BAR clarified this to CTA, the June 2001 document offers no discussion of the B values, how they were derived, or what significance they have to the pass/fail standards. This MUST be made part of the record before the public can evaluate the regulations.

The "Note" at the bottom of Table II should also be clarified in either the Statement of Reasons or the Title 16 language itself. It appears to give the Bureau broad capability to adjust tailpipe limits by as much as 30% without public hearings or review if there is a continued SIP shortfall.

Of great concern to CTA is the fact that all Table II values are in parts per million (ppm). By law, the BAR cannot pass standards that are more stringent than original engine certification standards. According to CCR Title 13, all original engine certification standards are in grams per brake horsepower hour (g/bhp-hr). In order to convert ppm values to g/bhp-hr, we would need to know the exhaust flow rate, engine speed, engine torque, and pollutant concentration in ppm for each specific engine being tested. This makes it very difficult to compare the Title 16 regulations to original engine certification standards.

Recommendation: Revise Table II to include concise explanations of all cut-point values, including all values in g/bhp-hr so that they can be compared to original engine certification standards.

This comment/recommendation was rejected because:

BAR has made the underlying data part of the record and has made it available to CTA. The availability of the data was formally noticed on March 11, 2002, with the publication of a Notice of the Extension of Public Comment Period and Addition of Information and Documents to the Rulemaking File. The underlying data and information for the proposed action is complete and adequately explains

the standards and how they were calculated. Further explanation in the regulation or in TABLE II is unnecessary.

TABLE II is as clear as it can be for a document of its type. TABLES III and I are just as clear and have never been challenged on this ground throughout the past six years. These documents are technical in nature and cannot be written in any plainer English than they currently are. To do so would require the creation of lengthy narratives that would be unnecessary and burdensome, and of little use to the general public.

CTA mentions that the loaded-mode emissions inspection procedures are not specified in the table, and BAR concedes that is true. BAR notes that the two-speed idle inspection procedures are not established in TABLE III either. The procedures for all types of inspections are found in Sections 3340.17 and 3340.42.1 of Title 16 of the California Code of Regulations, and in Section 44012 of the Health and Safety Code. There is no need to repeat those procedures in the tables or in any other form. The current laws and regulations are sufficient.

The June 2001 document states that BAR used the relationship between the average emissions from roadside data for medium-duty trucks (MDT's) - i.e., trucks with a GVWR of between 6,501 and 8,500 pounds - and the average emissions from roadside data for heavy-duty vehicles (HDV's) - i.e., vehicles with a GVWR of 8,501 to 9,999 pounds - to develop the HDV cut-points. BAR used the "B" coefficients from the cut-point table in place at the time (Phase 2.3 ASM Emissions Standards) for MDT's as shown in Table C-1 of that report. BAR calculated the "A" coefficients that were needed for the estimated HDV ASM cut-points as shown in Figures 2A – 2C of that report.

As for the 30% adjustment factor, authority has already been granted since that has been present in all emissions tables for at least six years. As stated in the existing regulation, the adjustment factor allows BAR to adjust the emissions standards slightly to mitigate excessive errors of omission (false passes) and commission (false failures). Further adjustments in pass/fail standards require extensive research and analysis. Prior to implementation of an automated electronic adjustment of emissions standards, stations are electronically notified and the information is posted on the BAR website, at www.smogcheck.ca.gov.

CTA's comments on the original certification standards and in-use Program standards are misguided. All the Program's in-use standards are concentration-based, not mass-based like the certification standards set forth in Title 13 of the California Code of Regulations.

- n. The proposed Title 16 amendments do a poor job of explaining the new standards so that they are clear to the affected vehicle owners. While the BAR has clarified to CTA that the VTW for all tested vehicles will be 6,000 lbs. to accommodate

the formula used by the software on the testing equipment, this is extremely unclear in the regulations.

This comment/recommendation was rejected because:

As was explained to CTA, the test weight is used to select the dynamometer loading for the ASM test. BAR set a cap for the load for testing all vehicles to keep the test simple, easy to perform and consistent with the equipment being used. The BAR-97 dynamometers have all been tested and found to be able to handle these loads. The analyzer selects the 6,000-pound figure, which is the vehicle test weight used for the cut-point calculation.

- o. The formula, $A+B/VTW$, itself is unclear and can be interpreted as either $(A+B)/VTW$ or $A+(B/VTW)$. If the formula is considered as written, basic mathematical concepts say that the division operation would be performed first. The BAR has clarified to CTA that the correct formula is $A+(B/VTW)$, but this should be clarified in Table II so that the correct version of the formula is included.

Recommendation: The formula used for pass/fail standards is in desperate need of clarification.

This comment/recommendation was rejected because:

The formula used for pass/fail standards is perfectly clear as written and is not in need of clarification. The current formula and the formula suggested by CTA are essentially identical mathematical expressions. As a mathematical rule, division takes precedence over addition and the parenthesis are not necessary in the formula. It should also be noted that this formula has been used in previous tables since 1995 and is currently used in the existing TABLE I.

- p. The Statement of Reasons states that the failure rate for the newly affected vehicles will increase from 8% to 13% under the proposed changes to Title 16. However, no plan has been outlined to increase the number of referee stations to deal with the increased failures, which will undoubtedly make it more difficult for failing vehicles to get appointments at referee stations. This places fleet owners in the position of either keeping their trucks off the road for greater periods of time or going through the process of obtaining temporary registrations if they cannot meet the requirements of the Program on time.

In 1995, when the BAR proposed enhanced Smog Check for vehicles of 6,000-8,500 GVWR, CTA cited instances of difficulties that fleet owners encountered with referee stations. Our position remains the same—it is unacceptable to expect truck owners to lose productivity because they cannot reasonably comply with the proposed testing requirements due to a shortage of referee stations to accommodate the industry.

Recommendation: The proposed changes should be rescinded unless the BAR comes up with a satisfactory plan to increase the number of referee stations statewide.

This comment/recommendation was rejected because:

This comment is unmeritorious because there will be very little if any call for these fleet vehicles to visit referee facilities. Generally, vehicles that fail a Smog Check inspection may be referred to referee facilities for repair cost waivers after a minimum of \$450 has been spent on emission related repairs. However, state law prohibits fleet vehicles from receiving emissions cost waivers except under very limited circumstances, so the demand for waivers would be very small.

Secondly, CTA comments that their members' vehicles are among the best maintained in the state and the cleanest in the nation. (Please refer to Comment/Recommendation 2.c. above, also) If that is so, these vehicles will not need to visit the referee facilities for any specialized treatment because they will pass a smog check inspection, not fail.

- q. The proposed language changes to Title 16 state in section (d)(1)(A) that heavy-duty vehicles must be tested in the enhanced program areas using the loaded-mode testing method unless "[t]he vehicle has a drive axle weight that exceeds 5,000 pounds when the vehicle is unloaded." CTA members have expressed concern with this language, as it is unclear if this figure is the GVWR of the drive axle or its physical weight. In addition, CTA feels that the BAR has created an exemption that isn't really an exemption at all. Since a vehicle still has to be taken to a testing station annually to verify that it meets the exemption qualifications, the burden on the carrier remains the same. If a vehicle is exempt from the testing once, it should be exempt until testing technology changes accordingly.

Recommendation: The BAR should clarify the language outlining the exemption qualifications.

This comment/recommendation was rejected because:

The test protocol allows the technician to override the ASM test and perform a TSI test if the drive axle weight is greater than 5,000 pounds, as measured by the analyzer. CTA misunderstands the exemption in two ways. First, the language is not a blanket exemption from the biennial inspection requirement; it is a limited exemption from the loaded-mode test. If the vehicle's weight exceeds the specified level, the vehicle will be subjected to a static, two-speed idle test. It will not be exempted from the inspection requirement.

Second, there is no requirement that "a vehicle be taken to a testing station annually to verify that it meets the exemption criteria". Smog check inspections

are required biennially and upon transfer of ownership. There is no annual inspection requirement.

3. Rob Hill, representing Southern California Edison, in oral testimony at the March 6, 2002 public hearing, offered the following:

- a. Southern California Edison is neutral at this point. Many of our heavy-duty vehicles won't fit in most smog check station garages for ASM testing.

This comment/recommendation was rejected because:

This comment is too general. BAR does not keep records of station dimensions. It is unclear how many stations or vehicles would be impacted.

If a vehicle will not fit on the dynamometer, the technician can override the ASM test to a TSI test. If the vehicle will not fit in the bay, the vehicle will have to go to another station with a bay that will accommodate it in order to be tested. However, the affected vehicles are typically the same size as vehicles already being tested on the dynamometer. For example, $\frac{3}{4}$ - and 1-ton pickups that have a GVWR greater than 8,500 pounds are essentially the same size as pickups already subject to an ASM test.

- b. Many of our vehicles are registered in an enhanced program area, but are garaged and operated in basic program areas.

This comment/recommendation was rejected because:

Fleets always have the option of changing the registration location to the applicable program area in which the vehicle is garaged and operated. When the enhanced program was introduced in 1998, a process was put in place with the Department of Motor Vehicles (DMV) whereby a "Notice of Change of Address" (DMV Form 14) could be submitted to change the "residence" address for the vehicle. This could then change the test type (i.e., TSI or ASM) required for the affected vehicle. The form is available on the DMV Website at www.dmv.ca.gov, under forms. This process also allows the corporate or headquarters address to remain the central or "Correct Mailing Address."

If this is not acceptable for some reason, fleets may also consider the cost mitigation options mentioned in Comment/Recommendation 2.k above.

- c. Section 3340.42(a)(8) needs to make it clear that diesel powered vehicles are still exempt.

This comment/recommendation was rejected because:

Section 3340.5 already makes the diesel exemption clear. Further clarification in Section 3340.42 would be duplicative and is unnecessary.

4. John R. Fiore, representing SBC/Pacific Bell, in oral testimony at the March 6, 2002 public hearing, offered the following:

- a. SBC/Pacific Bell is neutral at this time. Clarification is needed of what constitutes “unloaded” in section 3340.42(d)(2).

This comment/recommendation was accepted and the proposed action was modified as follows to accommodate it:

In order to clarify BAR’s intentions with regard to the term “unloaded,” the proposed text of Section 3340.42(d)(2) was modified as follows:

(2) For the purposes of this subsection, the term “unloaded” shall mean that the vehicle is not currently transporting loads for delivery or is not carrying items of a temporary nature, but excludes items that have been welded, bolted or otherwise permanently affixed to the vehicle, and tools, supplies, parts, hardware, equipment or devices of a similar nature that are routinely carried in or on the vehicle in the performance of the work for which the vehicle is primarily used.

The modified text should make it clear that when the term “unloaded” is used to describe a vehicle within the context of this subsection, it refers to the vehicle not carrying cargo of a temporary nature. However, items such as tools, supplies, hardware, equipment or similar devices that are regularly carried in the vehicle from job to job, and that are used in the ordinary performance of the work for which the vehicle is primarily used, are not to be considered cargo.

BAR recognizes the fact that many heavy-duty vehicles operated by utility companies and other similar businesses, frequently carry or are loaded with items that are not permanently affixed to the vehicle, but are essentially an integral part of the vehicle’s operation. These items are almost never unloaded or removed from the vehicle except when in use on a job site. Allowing these items to remain in a vehicle may cause some vehicles to exceed the maximum test weight, but requiring that they be unloaded prior to testing seems to be unnecessarily burdensome to the owner/operator. Most of these vehicles will still be testable and the primary purpose of the proposed action will be substantially accomplished.

(Please see Comment/Recommendation 8.b. also.)

5. Pete Hartman, representing United Parcel Service (UPS), in oral testimony at the March 6, 2002 public hearing, offered the following:

- a. The proposed action is estimated to achieve an emission reduction of 24.1 tons per day. The total program shortfall is estimated to be 47 tons per day. Where will the difference come from?

This comment/recommendation was rejected because:

Please refer to Comment/Recommendation 2.1. above.

- b. How many vehicles will be affected by the proposed action?

This comment/recommendation was rejected because:

This estimate is included in the Initial Statement of Reasons for the proposed action. To reiterate, BAR estimates that approximately 137,000 heavy-duty vehicles with a GVWR of 8,501 to 9,999 pounds would be subject to ASM testing annually under the proposed action.

- c. Will these affected vehicles be enough to achieve the tons per day reduction goal?

This comment/recommendation was rejected because:

Please refer to Comment/Recommendation 2.1. above.

6. Tom Cackette, Chief Deputy Executive Officer, California Air Resources Board, in oral testimony at the March 8, 2002 public hearing, offered the following:

- a. ARB is in support of the adoption of these regulations.

This expression of support was accepted and considered in the adoption of the proposed action.

- b. In July 2000, ARB and BAR completed an evaluation of the Smog Check Program and found that it had gone a long way toward meeting the objectives contained in the State Implementation Plan for reducing emissions, but unfortunately it also fell short of meeting the full objective. In fact, it was only achieving about half the emission reductions that had been anticipated. BAR and ARB worked together and identified, in the July 2000 report, some of the things that could be done to increase the effectiveness of the program. Those things include tightening of cut-points, sending more cars to test-only, implementing a remote sensing program, and adding heavy-duty gasoline-powered engines to a loaded-mode test in order to get NOx reductions. We showed that this would increase the effectiveness of the program by an additional 17 percent.

This goal is important because it is contained in the State Implementation Plan, which means it is federally enforceable through citizen lawsuits. We were falling

short, so the chief of the BAR and the executive officer of the ARB, wrote a letter to the Region 9 Administrator (USEPA) that laid out the specific steps that we would take to improve the program and set target dates for implementation of those steps. The steps included the testing of heavy-duty gasoline-powered trucks using a dynamometer test in order to reduce NOx emissions. The target date for this step was December 2001, and we are now well into 2002 and behind a little bit in getting this part of the program implemented.

I want to urge you today to try to address the issues, wrap them up as fast as possible and move forward with implementation of the testing. I don't think I need to remind you that there are people looking over our shoulders on this. As we fall a little more behind schedule there's going to be more and more concern about whether or not we're going to achieve emissions reductions by the SIP target dates of 2005, 2007 and 2010, depending on urban area. It's imperative that we move forward with these regulations, and once adopted, implement the testing as soon as possible.

This expression of support was accepted and considered in the adoption of the proposed action.

7. Candice Traeger, representing United Parcel Service (UPS), in oral testimony at the March 8, 2002 public hearing, offered the following:

- a. We have been unable to determine a position. We would ask for a 30-day delay in order to determine what our position is.

This comment was accepted and the following action was taken to accommodate it:

In order to accommodate the United Parcel Service's request, the public comment period was extended twice; first, through April 8, and again through May 8, 2002.

(Please refer to Comment/Recommendation 2.a. above also.)

- b. To the extent that the test requires vehicle emissions cut-offs that are below the original engine certifications, we are definitely opposed.

This comment/recommendation was rejected because:

The same methodology has been used to formulate standards for passenger vehicles and light- and medium-duty trucks without exceeding the manufacturers original certification values. The standards formulated for heavy-duty vehicles are less stringent than the manufacturers original certification values.

(Please refer to Comment/Recommendation 2.f. above also.)

8. Mac Fernandez, representing Pacific Gas and Electric (P.G.&E.), in oral testimony at the March 8, 2002 public hearing, offered the following:

- a. We're concerned about your test data. We need to know what that was based on.

This comment/recommendation was rejected because:

The report, *Proposed "Initial" Cut-Points for Heavy-Duty Vehicles*, June 6, 2001, describes, in detail, the data collected and the methodology used for determining the cut-points included in the proposed action. This report was cited in the Initial Statement of Reasons for the proposed action, and was available throughout the public comment period.

The report, *Evaluation of ASM Testability of Heavy-Duty Vehicles*, February 14, 2001, describes, in detail, the data collected and methodology used to determine which heavy-duty vehicles would be testable using the current BAR-97 ASM test equipment. This report is cited in the subsequent report, *Proposed "Initial" Cut-Points for Heavy-Duty Vehicles*, June 6, 2001, and was separately added to the record of the proposed action. Notice of the addition of this document was published on March 11, 2002. This report was also available throughout the public comment period.

- b. Our vehicles are modified when they are received into the fleet from the original manufacturer equipment. They are also fully loaded at all times (with parts, supplies, machinery, tools and equipment), and you're proposing to test them at half load or unloaded. We're concerned about that.

This comment/recommendation was rejected because:

In most cases, the load applied by the dynamometer assumes the vehicle has a partial load, or is essentially unloaded (the exceptions are typically due to a technician error). This is the case for all vehicles tested on the dynamometer. BAR never intended to test any vehicle fully loaded.

The analyzer software has an upper end cap of 25 hp, which equates to approximately a 6,000-pound vehicle (that is the maximum load applied at 15 MPH, the load applied at 25 MPH will be somewhat less). Any vehicle with a test weight greater than 6,000 pounds will be tested as though the vehicle weighs 6,000 pounds.

If the drive axle weight is greater than 5,000 pounds, the technician can override the ASM test and perform a TSI test.

(Please refer to Comment/Recommendation 4.a. above.)

- c. Our vehicles accumulate much higher mileage in a shorter period of time than the average fleet vehicle. We're concerned about that.

This comment/recommendation was rejected because:

The Smog Check program is an inspection and maintenance program. In theory and in practice, well-maintained vehicles, regardless of age or vehicle miles traveled, should pass the loaded-mode test. Excessive emissions are excessive, regardless of mileage. Furthermore, higher mileage equates to even greater emissions impact if vehicles are not regularly maintained, tested and, if necessary, repaired.

- d. Lots of our vehicles have been tested using the two-speed idle test and haven't been tested for NOx. We're concerned about the failure rate for NOx testing.

This comment/recommendation was rejected because:

As stated above, the Smog Check program is an inspection and maintenance program. In theory and in practice, well-maintained vehicles, regardless of age or vehicle miles traveled, should pass the loaded-mode test. Furthermore, as part of the TSI test, the emissions systems that control NOx on heavy-duty vehicles are already functionally tested biennially.

- e. I understand that 100 to 150 vehicles had been tested to give you your database. I am wondering how those vehicles compare to our fleet in terms of the type of vehicle, modification, loading and operational use.

This comment/recommendation was rejected because:

The data was compiled from the roadside test results of over 600 heavy-duty vehicles selected at random from the various model-year groups. How each of these vehicles compare to specific vehicles operated by PG&E is not known.

(Please refer to Comment/Recommendation 8.a. above, also.)

- f. We are also wondering about the repair cost limits for these vehicles if they do fail. Will the \$450 repair cost limit apply to these heavy-duty vehicles? We are worried about these cost factors being added to our operational costs.

This comment/recommendation was rejected because:

First, we must clarify that there is no longer a repair cost "limit" for any vehicle. There is currently a repair cost "minimum." The \$450 repair cost minimum does not apply to vehicles owned and operated by fleets licensed to test their own vehicles under Section 44020 of the Health and Safety Code. This includes light-, medium- and heavy-duty vehicles.

Currently, heavy-duty vehicles, such as those operated by PG&E must undergo Smog Check testing biennially utilizing the TSI test method. The proposed action merely specifies a different type of biennial test that happens to measure one additional pollutant, NO_x. Cut-points for all pollutants are set to fail vehicles that would benefit from emission reducing repairs that would be viewed as routine maintenance. These same repairs result in other benefits such as fuel economy and efficiency - benefits that would be cost effective - making them especially important for fleet operators such as PG&E.

9. Charlie Peters, representing Clean Air Performance Professionals, in oral testimony at the March 8, 2002 public hearing, offered the following:

- a. I understand that the proposed action is based on and responds to federal regulations. EPA sets guidance and sets standards for air quality, and sets standards for reductions in order to make those goals. It does not provide specific regulations we're required to follow. I believe that has been made very clear with very serious questions as to whether or not California has the right to evaluate its program and to set up procedures to accommodate the reductions and to meet the standards of the Clean Air Act. I don't believe we're responding to EPA regulations. It seems more that we're responding to wishes of possibly special interests within the State of California, in fact, rather than being concerned about making the reductions in emissions.

This comment/recommendation was rejected because:

If the point of this comment is that federal regulations do not specifically require ASM, or loaded-mode testing of heavy-duty gasoline powered vehicles that is correct. However, California has stated in its 1994 Ozone SIP that several things needed to be done to enhance the Smog Check Program in order to achieve required emissions reductions. One of those things was ASM testing of heavy-duty vehicles up to 14,000 pounds GVWR. The proposed action is seeking to include heavy-duty vehicles in ASM testing, but only up to 9,999 pounds GVWR.

- b. Mr. Peters continued with comments directed at the smog check program in general and described events that took place in 1992 in which he criticized the federal test procedures. In his comments he disputed the appropriateness and effectiveness of loaded-mode testing in general.

These comments/recommendations were rejected because:

Mr. Peters' comments were outside the scope of, and not germane to the proposed action to include heavy-duty vehicles in loaded-mode testing. His comments were too broad and dealt with issues that have previously been addressed elsewhere in statute and regulation.

10. Chris Ervine, owner of Chris' Automotive Repair Service, in a letter dated March 14, 2002, offered the following:

- a. Many of the existing dyno's were not designed to operate with the kind of axle weight required to test heavy-duty vehicles.

This comment/recommendation was rejected because:

The dynamometers used in the Smog Check program are designed to accommodate vehicles with drive axle weights up to 6,000 pounds. Most vehicles subject to the proposed action have drive axle weights within the testable range of these dynamometers. Furthermore, the proposed action allows Smog Check technicians to default to the TSI test if the axle weight exceeds 5,000 pounds.

- b. Many smog stations do not have the overhead clearance required to accept motor homes and trucks.

This comment/recommendation was rejected because:

Motor homes are expressly excluded from ASM testing by the proposed action.

(Please refer to Comment/Recommendation 3.a. above, also.)

- c. In December we were forced to pay for Addendum 7 software updates in order to stay in the program. Now we are being forced to invest in additional equipment to be able to test evaporative emission control systems. At the same time even more vehicles are being directed away from our test-and-repair business to test-only. BAR doesn't seem to understand that we are in business to make money and unless we can, were out of business.

This comment/recommendation was rejected because:

This comment is outside the scope of, and not germane to the proposed action to include heavy-duty vehicles in loaded-mode testing.

- d. BAR doesn't seem to think test-and-repair stations are doing their jobs, and in some cases that may be true. But, there are just as many test-only stations that are not doing their job. As a CAP station, we see mistakes made by the same test-only stations over and over again. Smog tests are the gravy; the repair end is where all the headaches come from. I'm starting to wonder when BAR will stop punishing the test-and-repair industry.

This comment/recommendation was rejected because:

This comment is outside the scope of, and not germane to the proposed action to include heavy-duty vehicles in loaded-mode testing.

- e. BAR is lowering the cut-points on emissions and making it financially harder on the people in the San Joaquin Valley to own a car. Just over the hill, the Bay Area is still doing smog tests with old equipment and 1990 emission standards. It's a fact that 27% of the pollution in the valley is coming from the Bay Area and yet nothing is being done to remedy the problem.

This comment/recommendation was rejected because:

This comment is outside the scope of, and not germane to the proposed action to include heavy-duty vehicles in loaded-mode testing.

11. Eric Burch, a licensed Smog Check technician, in an undated letter received March 25, 2002, offered the following:

- a. I, as a technician licensed under BAR, would like to strongly disagree with the proposed action to amend section 3340.42 of Title 16 of the California Code of Regulations to require acceleration simulation mode (ASM) testing of heavy-duty vehicles with gross vehicular weight ratings between 8,500 and 9,999 pounds. The heavy-duty vehicles in our area [Taft, CA] are primarily used for off-road use only.

This comment/recommendation was rejected because:

Vehicles used exclusively off-road and not registered or seeking registration for on-road use, are not subject to the Smog Check Program. If these vehicles are registered for on-road use, they are already being tested using the TSI test method. The proposed action only changes the type of test to which they would be subject.

There were no comments concerning the modified proposed action.

Local Mandate:

A mandate is not imposed on local agencies or school districts.

Business Impact:

This action will not have a significant adverse economic impact on businesses.

Consideration of Alternatives:

No reasonable alternative which was considered or that has otherwise been identified and brought to the attention of the Bureau would be either more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed regulation.